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ABSTRACT

This publication discusses four models for technical preparation (tech prep): program organization; student progress; tech prep data collection and evaluation model; and school/community. The program organization model is divided into four sections. Section I, the business industry, and labor section, shows the flow from craft committee and partnerships in excellence through the DACUM (Developing a Curriculum) process to involvement of unions. It also describes how Delaware's Business, Industry, and Education Alliance, the various local Chambers of Commerce, and state government agencies each play a significant role. The next section describes the tech prep consortium and its mission. Section III on articulation procedures discusses three identifiable strategies and provides a sample articulation contract. Advanced standing is addressed in Section IV. Following this is a description of the student progress model, divided into two sections: high school phase and transition to postsecondary. Section I focuses on recruitment, enrollment, advanced credit, and final secondary year. Section II considers selection, career guidance and placement test, registration, enrollment with advanced standing, and higher education. Next, the data collection and evaluation model outlines teacher procedures; Delaware Department of Public Instruction/Educational Computer System procedure; postsecondary procedure; evaluation and assessment; and descriptive studies, including measure effects on recruiting and success of feeder schools. Finally, the school-community model outlines six specific educational needs of students who do not consider college a viable option. The needs are divided between program entry and admission to higher education. (YLB)

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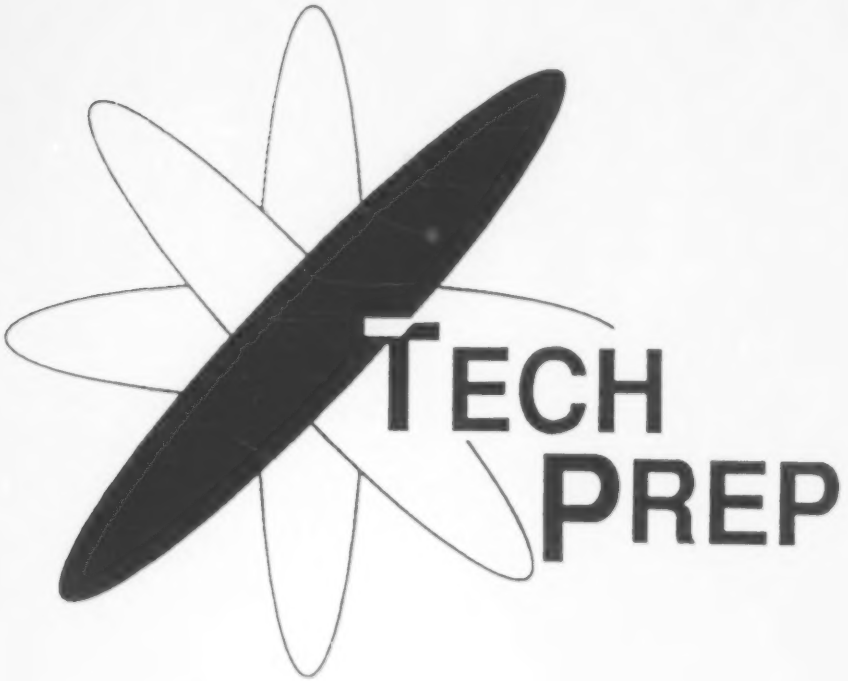

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Statewide Vocational-Technical High Schools
and
Delaware Technical and Community College
(Four Campus Locations)

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INTRODUCTION

THE DELAWARE CONSORTIUM ON TECHNICAL PREPARATION PROGRAMS-

Is a statewide cooperative consortium. The mission is to assist school districts and postsecondary institutions in the development and implementation of the "2+2" Tech Prep Programs. The consortium concept was funded under a matching grant by the State Board of Education through the Vocational Division, Department of Public Instruction. A Board of Directors was convened to conduct the consortium operation. Board members are: Dr. John R. Kotula, President, Delaware Technical Community College (DTCC); Dr. Dennis Loftus, Superintendent, New Castle County Vocational Technical School District; Dr. Jeff Adams, Superintendent, Kent County Vocational Technical School District; Dr. George Frunzi, Superintendent, Sussex County Vocational Technical School District; Dr. Manera Constantine, Executive Director, Delaware Advisory Council on Career and Vocational Education; Dr. Thomas M. Welch, State Director, Vocational Division, Department of Public Instruction (Ex Officio).

CONSORTIUM PURPOSE-

To convene a Consortium Board of Directors, employ an Executive Director, conduct activities to promote "2+2" programs, assist secondary and postsecondary institutions in developing specific programs, coordinate articulation efforts between secondary and postsecondary institutions, conduct workshops and seminars to assist staff in the development of curriculum competencies.

PROGRAM PURPOSE-

This project provides workshop opportunities for department chairpersons to meet together and draft "2+2" agreements. These agreements will provide many new options for high school students to obtain a college education while easing the transition to postsecondary technical education.

HISTORY-

A workshop was held in February of 1986. Members of the DTCC staff were present. Guidance counselors and administrators were present representing each Kent County school district. There were twenty-five (25) participants over the two-day

period. Specific articulation agreements were signed with three programs between DTCC and Kent County Vocational Technical School District. The single most important achievement was the agreement on the awarding of credits for advanced placement at Delaware Technical Community College.

Staff members from high schools and DTCC, currently cooperating in articulated programs, come together and discuss program problems/needs on an annual basis. Skill competencies are refined thus improving articulation between secondary and postsecondary programs. A second group consists of staff members planning new articulated courses scheduled for implementation each September. Facilitators are available to assist both groups in meeting their workshop goals. Experts in the area of articulation are invited to speak. A specific program time-line is generated for the implementation of each articulated program.

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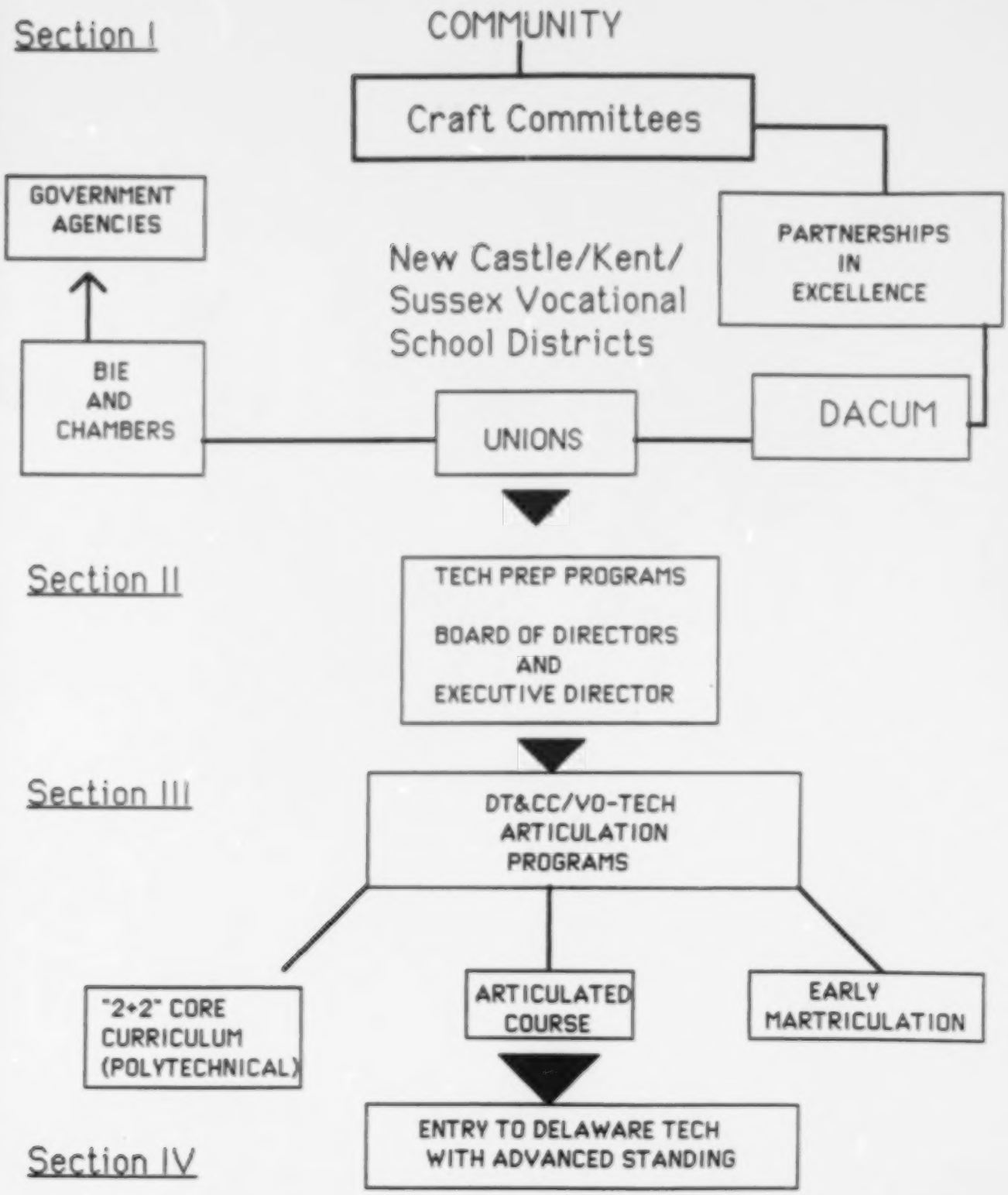
PROGRAM ORGANIZATION

PROGRAM ORGANIZATION MODEL



PROGRAM ORGANIZATIONAL MODEL

SECTION 1 - BUSINESS INDUSTRY AND LABOR

Description of Craft Committee and Partnerships in Excellence

The vocational technical high schools formulate craft committees for each course of instruction taught in each school. From these craft committees, members join a smaller group representing the entire district and are identified as Partnerships in Excellence.

The craft committees advise on the specific curriculum needs of their craft while the Partners advise the district on policy and procedures related to curriculum development or revision. The Partners also serve as outreach agents into the community.

Both groups are encouraged to actively participate in an advisory capacity and to impact on the scope, sequence and technical development of our curricula.

Description of DACUM

The consortium recommends that the DACUM process be the vehicle through which business and industry can impact on curriculum development. DACUM is an acronym for "Developing a Curriculum." This method is highly touted by the National Center for Research in Vocational Education, Ohio State University. The basic premise states that the technical professionals are those individuals who earn their living performing on the job daily. They know the duties and tasks necessary to be successful at the job. By convening a panel of eight to twelve such professionals, recruited from the craft committee members including the "Partners," trained facilitators begin to elicit from the panelists the pertinent duties and tasks performed on their job. Then the facilitators encourage the panelists to identify: (a) the worker traits and attitudes; (b) knowledge; (c) special skills; (d) tools and equipment needed to be successful. Upon the conclusion of identifying categories "a through d," the facilitators should have a comprehensive framework to assist the teachers in restructuring the content of the instructional course of study.

The remaining task is to identify and list the specific competencies and evaluation criteria under each unit. However, this latter phase is left to the instructor.

The participating professionals have impacted on the curriculum through a positive contributory process. Quite often they provide additional free resources to the district/school. Members of the DACUM panel should always be asked to return on an approximate six month schedule to observe the classroom and evaluate the curriculum content.

Union Involvement

While vocational-technical centers must continue to seek the technical expertise of the business community, the district personnel must also maintain close cooperation and involvement with the various union representatives. Trade and technical courses still lead to apprenticeships, journeyman status, licensing, and finally to full union membership. For our graduates, these access roads must remain open. The unions must be represented across the board on craft committees and within the partners group.

Description of BIE and The Chambers

In Delaware, we are fortunate to have a group known as BIE, the Business, Industry, and Education Alliance. This group meets in each county on a quarterly basis and interacts with various business, labor, industrial, community and educational groups. Problems and solutions are discussed on a wide range of topics concerning both business and education. Several unique and outstanding programs involving both community groups and student groups have originated with BIE. More importantly, however, BIE continues to facilitate a cooperative effort and encourage active participation by business.

The various state and local chambers of commerce participate in BIE. The chambers could be a valuable public relations arm and specific public relations plans should be implemented by the districts relying on the expertise of chamber members. The chamber members have a multitude of experiences that are utilized by our state model.

Description of Government Agencies

The final element or as we perceive it, the cement that binds the model, is state government. The agencies within our state that impact on the model are the Department of Public Instruction, State Board of Education, the Department of Labor, the Delaware Development Office, the Legislature and the Executive Branch.

In Delaware, with the current emphasis on economic development, we are beginning to build broad base approaches which include contributions from many agencies. As the executive branch determines the statewide budgetary priorities and the legislature concurs, the agencies mentioned above begin to implement the short and long range action plans designed to enhance our vocational delivery system and enhance economic development. More so than in previous administrations, interagency cooperation is flourishing and positive outcomes are resulting.

SECTION II - TECH PREP CONSORTIUM

Consortium

As business, community and government agencies cooperatively begin to impact on the vocational delivery system, our next identifiable priority is the transition of students to work or transition to postsecondary education. The transition to work is the task of the craft advisors, partners, administrators, staff and placement counselor services within the vocational centers. These services are long standing, have an excellent reputation and function well.

The neglected component has been the transition to postsecondary education from the secondary vocational center. Members of the government, primarily one interested legislator, Edward Bennett, joined quickly by several far sighted colleagues, helped develop a consortium to attack and solve the transition problem. Other significant contributors included the President of the State Board of Education, the State Superintendent of Public Instruction, the State Director of Vocational Education, the three Superintendents of the County vocational Systems, the Executive Director of DACCVE (Vocational Advisory Council) and the President of Delaware Technical Community College (DTCC).

The consortium was organized and adopted a formal name, "The Delaware Consortium on Technical Preparation Programs." The programs are referred to as "Tech Prep." A Board of Directors was convened, an Executive Director employed and operations began in January, 1987.

The Mission of the Consortium is to:

1. Establish lines of communications between participating secondary and postsecondary institutions involved in the articulation process.

2. Identify which secondary and postsecondary instructional programs can be easily coordinated for transition.

3. Rewrite or expand curricula competencies in those instructional programs identified for articulation.

4. Cooperatively design guidance forms, test forms, and course competency checklists for participating students.

5. Publish and distribute a quarterly newsletter about articulation and Tech Prep efforts.

6. Develop a functional operational model to solicit the involvement of business and industry.

7. Design an evaluation model to track program and student success.

8. Provide technical assistance to cooperating instructors for curriculum development.

9. Conduct a public relations effort to enhance student and public awareness of the program.

SECTION III ARTICULATION PROCEDURES

DTCC/Vo-Tech Articulation

Through the efforts of "Tech Prep," the vocational-technical districts, and Delaware Technical Community College have developed programs to ease the transition to postsecondary education. A comprehensive explanation of these articulation programs can be found in the position paper, Mandate for Technical Preparation Through Secondary and Postsecondary Articulation, developed by Tech Prep.

There are three identifiable strategies currently operating.

Core Curriculum-

Is better known as "2+2." Grades 11 and 12 in high school are highly structured and coordinated with grades 13 and 14 at Delaware Technical Community College (DTCC). Students transferring to DTCC progress through a series of sequential competencies eliminating repetition of tasks already mastered and avoiding gaps in relevant instructional knowledge. Advance credits for DTCC may be earned in grades 11 and 12 while students are still in high school.

Articulated Course-

Is an agreement between DTCC and a secondary school stating that a specific secondary course meets DTCC standards. Successful students do not repeat the course at DTCC. Advanced credit can be earned and applied upon admission to DTCC.

Early Acceptance at Delaware Technical Community College

Is for high school seniors who need a few credits to graduate and can schedule morning classes. They apply for admission to DTCC and once accepted, leave high school, drive to the nearest campus and pursue college courses at DTCC in the afternoon. For an overall view of the reasons behind this strategy within the articulation movement, one may read The Neglected Majority, by Dale Parnell. Parnell calls it the "Twelfth-grade Throw-away."

Visiting Instructor Program-

Is offered to participating high schools who have advance credit agreements with one of our in-state colleges. Specialty courses are difficult to man. Often, high schools do not have either the enrollment nor resources to schedule specialty courses. The VIP program permits a qualified instructor from the college to conduct a specialty course for advance credit at the high school. Tech Prep provides the necessary instructional materials. The high school is only responsible for providing space and organizing students interested in attending.

It is important to note, that each postsecondary institution in Delaware has the same program options available to Delaware Technical Community College.

ARTICULATION PROCEDURES

Steps

1. Secondary and postsecondary institutions agree on a technical area (as defined in the Perkins Vocational Act) that can be articulated.

2. A workshop is scheduled so that instructors from secondary and postsecondary schools can meet and discuss (a) Course Content (b) Scope and Sequence (c) Goals and Objectives (d) Specific Competencies (e) Instructional Materials (f) Equipment (g) Textbooks. (See Workshop Paradigm - Next Page)

3. Where there are areas of weakness in the secondary program, recommendations are made to strengthen the course so that it meets the postsecondary criteria.

4. Where programs initially meet or with modification meet the requirements in (2) above, the course is designated as an articulated course.

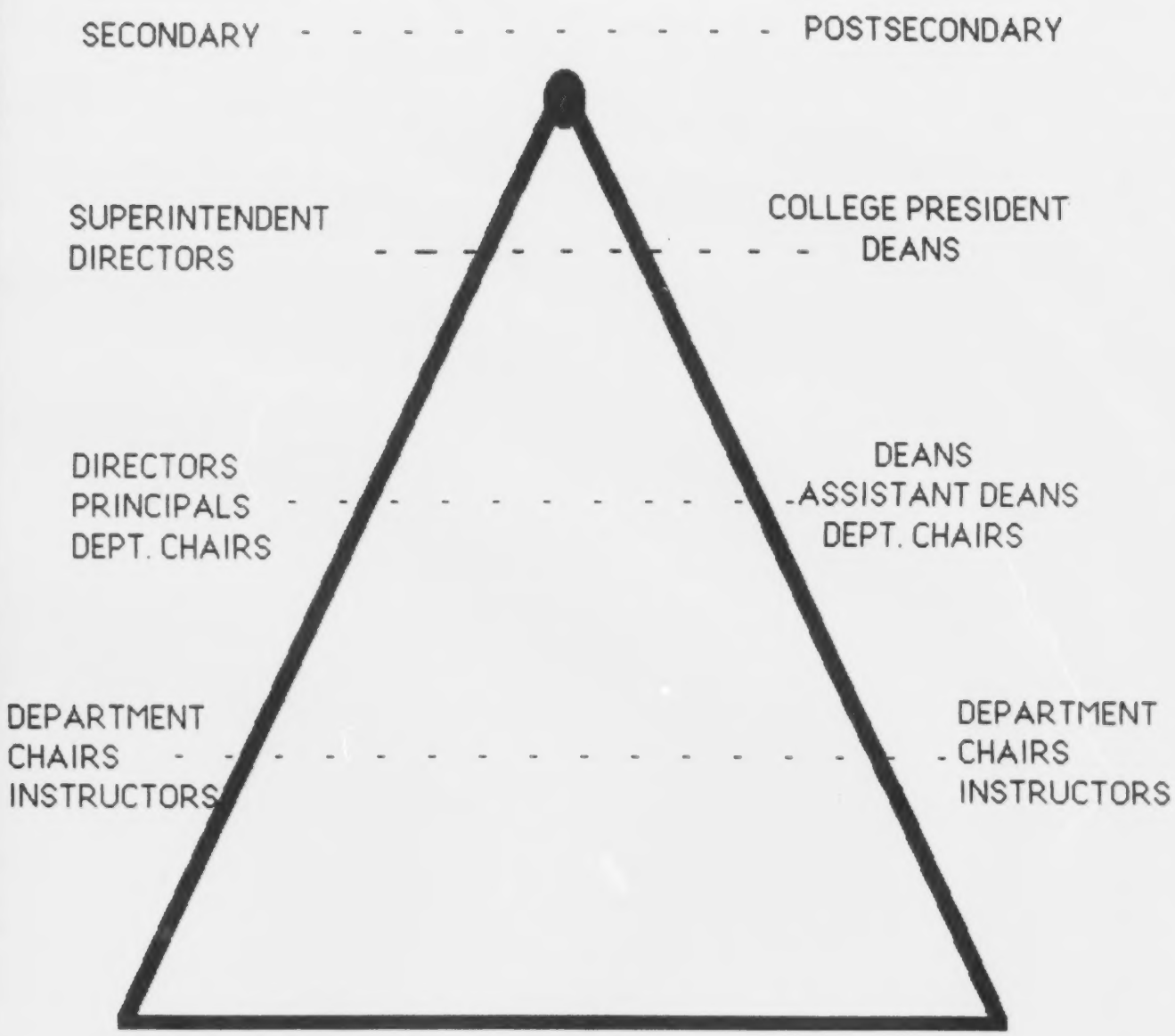
5. As many courses should be articulated as feasible within a technology in order to strengthen the appeal of advance credit.

6. Once there is adequate technical articulation, staff can begin to consider support for core curricula courses such as Math and Science. Several workshops may be needed to finalize the product.

7. All articulated courses and caveats are specified and the process ends when both institutions formally adopt and sign an "articulation contract."

8. Articulation contracts should be reviewed annually. Follow-up meetings should be scheduled between staff members to maintain lines of communication.

WORKSHOP PARADIGM



SAMPLE ARTICULATION CONTRACT

DELAWARE TECHNICAL & COMMUNITY COLLEGE
TERRY CAMPUS

AND

CAESAR RODNEY SCHOOL DISTRICT
CAESAR RODNEY HIGH SCHOOL

AGREEMENT TO ARTICULATE

OFFICE SYSTEMS TECHNOLOGY

Copies Signed_____

Copies Distributed_____

Delaware Technical & Community College, Terry Campus
and
Caesar Rodney School District

AGREEMENT TO ARTICULATE

FEBRUARY 1991

Whereas it is the desire of Delaware Technical & Community College and the Caesar Rodney High School to provide expanded educational opportunities to the citizens of Kent County and,

Whereas it is the intent of the two systems of education to reduce overlap and duplication of education programs that are similar in content.

Be it herewith resolved that this Agreement to fully support a working Articulation Process between similar education programs of the two education systems is established.

Through participating in the Articulation Process, representatives of both systems of education will mutually recognize the value of education programs provided by each institution. Participating instructors in the secondary and college levels will formally teach from a list of core competencies based on job tasks requirements.

Annual review of the articulated task objectives, and minimum competency standards will be necessary to ensure that a valid education continuum is serving the needs of the students and the community. This annual review will take place at mid-year.

Where overlapping or duplication of instruction appears to be evident, an attempt will be made on the part of both systems to identify methods of advance placement or the granting of credit for past learning experiences.

As new programs are offered at either level of education, articulation efforts will be explored and implemented where feasible.

Both educational systems will cooperate toward developing, disseminating, and presenting occupational information to students within the public school system concerning the process of choosing a career. Such information will include, as a minimum, an orientation on career programs at the secondary and postsecondary levels and the articulation agreements that have been made between the two systems of education.

This agreement may be renewed or modified by the Campus Director of Terry Campus and the Superintendent of the Smyrna School District, or their designees.

Dr. Wayne Barton **Superintendent** **Smyrna School District**	**Wayne Dabson** **Dean of Instruction** **Delaware Technical & Community College, Terry Campus**

Advanced credits earned by secondary students will be held in escrow by Delaware Technical and Community College until the student has successfully completed one quarter of instruction after enrolling at Delaware Technical and Community College. At the end of the first quarter, the respective campus Deans of Guidance will enter the appropriate credits into the college transcript.

MEMORANDUM OF AGREEMENT

Delaware Technical & Community College, Terry Campus
And
Caesar Rodney High School

Office Systems Technology

1. **Students completing courses in Office Systems Technology as specified below, will upon the recommendation of the high school teacher, receive advance credit as designated to Delaware Technical & Community College.**

2. **Students must achieve a grade of "B" or better and master 90% of the contracted course competencies.**

3. **Students taking additional courses at the Terry Campus must meet all prerequisites for these courses.**

4. **This course is SY 131 Keyboarding (4) Credits.**

_____
DTCC, Terry Campus
Office Systems Technology
Dept. Chair

_____
Caesar Rodney High School Dept. Chair

_____
Dean of Instruction
DTCC, Terry Campus

_____
Superintendent
Caesar Rodney School District

SECTION IV ADVANCE STANDING

Entry to Delaware Technical Community College with Advanced Standing.

This is the ultimate objective of our model. However, one can easily assess that it is not accomplished without difficulty. Staff members must agree to the sequenced competencies, institutions must agree to cooperate, and the concept must be acceptable to the education community and our students. A comprehensive examination of current national programs and problems may be found in Avenue for Articulation, The National Center for Research on Vocational Education, Ohio State University.

Nevertheless, the Delaware project is underway and the early signs indicate that:

(A) Student acceptance is highly positive.

(B) Public acceptance is growing.

(C) Institutional staff involvement is positive and growing rapidly. New programs are planned for September 1991.

(D) A public relations effort is being organized and should be implemented prior to September 1991.

(E) A cooperative effort has been established with the Delaware Teacher Center to offer courses for statewide secondary and postsecondary staff in developing "2+2" curricula. Teachers will earn state in-service credit for the course.

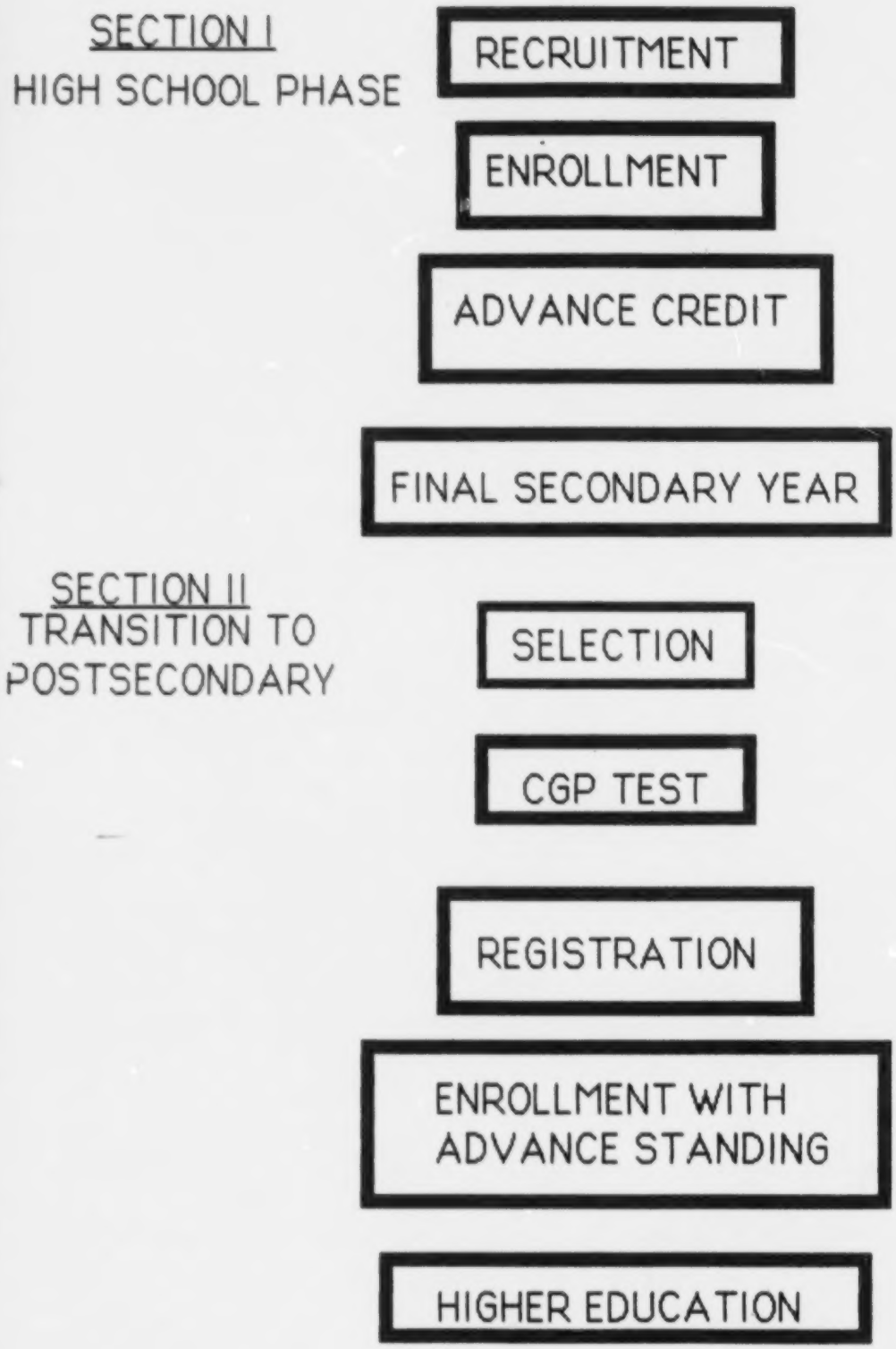
(F) A student educational accounting system has been organized and is accessible through the statewide educational computer system (ECS).

(G) Workshops are being organized and conducted. Workshops completed to date have been rated highly by participants.

For an up-to-date review of specific program data, enrollments and a general progress report, one can obtain, Tech Prep: Program Description Booklet, Delaware Consortium on Technical Preparation Programs, February 1, 1989 or a copy of the Delaware Tech Prep Annual Report.

STUDENT PROGRESS

STUDENT PROGRESS MODEL



STUDENT PROGRESS MODEL

SECTION I - HIGH SCHOOL PHASE

RECRUITMENT

Presentations should be developed and offered to students statewide in grades 8 and 9. Presentations should be made to students in their current school of attendance and coordinated through the vocational administrative and guidance staffs. The presentations may take various forms. They may be films, slides, handouts, transparencies or utilization of the Youth Speakers Bureau.

Delaware recently enacted legislation that provides one Career Guidance and Placement Counselor (CG&PC) in each high school in the state. The priorities for these counselors include presentations to middle schools in an effort to inform middle school students of the available choices.

The Youth Speakers Bureau is a concept developed by the Public Relations Subcommittee of the Business, Industry, and Education Alliance (BIE). High school students and recent graduates who have been successful in a chosen technical occupation accompany the professional guidance counselors from the technical centers to assist in the recruiting seminar.

Normally, the guidance counselor from the technical center schedules a seminar with the home school principal and makes the presentation using one of the strategies listed above.

In order to ensure that all eligible and interested students have an opportunity to learn of "Tech Prep" programs, a brochure has been developed for distribution to schools and direct mailing to homes. Thus, students who may have been absent are not left out.

Billboard designs and spot radio announcements should be developed. These ads and announcements are tax deductible since Tech Prep is a non-profit organization. This combined approach would be developed as a strategy to inform the general public of "Tech Prep" programs, develop public confidence and support, entice students who have not made a final decision on their high school career and establish the Tech Prep Logo as a recognition symbol for excellence in the community.

The Tech Prep Logo was designed by a technical student at Delcastle High School, Miss Cari Sheehan, in an open statewide competition that drew fifty-two entries. The Logo now adorns the billboard displays, Tech Prep letterhead, brochures, and our graduation emblems. Miss Sheehan was awarded a U.S. Savings Bond for her winning entry.

The Tech Prep motto is, "High School Students Can Earn College Credit" and our slogan is, "Prepare Today For Tomorrow's Jobs."

ENROLLMENT

Interested students may contact either their home school counselor or the vocational-technical center counselor to initiate a transfer to the technical center for the impending school year.

The candidate should be tested using various instruments to determine basic English and math skills, I.Q., spatial relations, reference ability, manual dexterity, and vocational interest. A conference should then be scheduled between the student, parents and counselor to review the testing results and the vocational interest survey. A career cluster is selected and the student enters grade nine (9) in a technical center. In grade nine (9) heavy emphasis should be placed on basic skill development and a technical or advanced math course should be scheduled. The career cluster is an exploratory experience offering the student an opportunity to test several related course specialities. A follow-up counseling session should be held to assist the student in a speciality selection for grade ten (10).

Our technical centers must not schedule nor organize the curriculum in such a way as to lock students into a cluster. They must permit flexibility and offer corresponding courses that will allow the student to change clusters or transfer to college preparatory programs.

In our full time technical centers, students enter in grade nine (9) and pass on to grade ten (10). Our shared time technical centers, students enter in grade ten (10), coming directly from the home high school for a half day technical program and returning to the home school for the academic courses. Currently, Delaware is converting to all full time vocational-technical schools.

In either case, grade ten (10) is an important year. Career goals hopefully are clearer to the students and a specific vocational or technical trade is selected. Again, as in grade nine (9), emphasis is placed on basic skill development with advanced math. But, the technical exploratory phase is over. Technical course competencies are delineated and the student embarks on the mission to master the technical skills.

ADVANCED CREDIT PHASE

Entering grade eleven (11), the student becomes eligible to earn advanced credit toward postsecondary work at one of several colleges in Delaware. Prior to eligibility, several issues must be resolved. First, the student must pass the CGP test administered to incoming college students by reaching the minimum acceptable percentile levels in math and english at Delaware Technical Community College or an admission test at the other colleges. Secondly, the program selected by the student must be an Articulated course. In other words, the high school course must be reviewed and accepted by the college personnel responsible for the specific curricular area. The final condition requires that the student earn an academic grade of "B or A", masters 90% of the course competencies, and obtains the recommendation of the secondary course instructor. Most secondary courses qualify for three credits, but this policy may vary based on time and difficulty of the course as structured by the college.

All advanced credits earned by Tech Prep students in high school are entered on the high school transcript, entered on the postsecondary transcript and entered into the Data File System which tracks all Tech Prep student records through the state operated Educational Computer System (ECS). This system is also coordinated with the Study of Vocational Graduates conducted annually by the Division of Planning, Research, and Evaluation within the Department of Public Instruction. Delaware is currently prepared to follow the Tech Prep students over a period of years to determine what happens to them after graduation.

FINAL SECONDARY YEAR

In grade twelve (12), there is a two part program. In phase one, there is continued emphasis on the academic technical course work necessary to become a successful postsecondary candidate. The second phase is the technical practicum consisting of hands on experience and technical concept building. This phase may be taken exclusively at a technical center or students can walk or ride to a nearby college campus and pursue course work in college classrooms. In either case, course work completed in the practicum areas is eligible for advanced credit.

Upon completion of the practicum, based on the individual effort, a student may have earned as many as twenty-four advanced credits toward an Associate Degree or Bachelor of Science Degree at Delaware Technical Community College, Wilmington College, or Delaware State College.

Upon graduation from high school, the advanced credits will be assigned as earned by the student essentially reducing the time needed to graduate with an Associate Degree or Bachelor of Science Degree. In short, the objective has been reached and simply stated, articulation permits students to pursue postsecondary programs without requiring students to repeat skills they have already mastered in high school. Thus students, institutions, and the state save time, money and eliminate duplication of efforts.

SECTION II - TRANSITION TO POSTSECONDARY

SELECTION

The Tech Prep candidates are evaluated during the first marking period by the vocational-technical instructor. At the end of the first marking period, the vocational-technical counselor checks to see if the candidate has a combined home school and vocational-technical grade point average of 90%. Those candidates recommended by the vocational-technical instructor and counselor are scheduled for the College Guidance and Placement Test in order to qualify for admission to on-campus courses at Delaware Technical Community College or the other colleges.

C.G.P. TEST

The Vocational-technical Career Guidance & Placement Counselor (CG&PC) coordinates with the Delaware Technical Community College admissions office and arranges a date and time for the candidates to complete the placement test. A roster with names of the candidates is forwarded to the placement office. The admissions office administers the test, scores the test, and requests the candidates complete an application for admission. (Non-Matriculated) The Delaware Technical Community College cluster counselor meets with the vocational technical counselor and the appropriate Delaware Technical Community College department chair-person and determines which candidates are eligible to participate and in which courses he/she will register. Other cooperating colleges follow a similar procedure.

REGISTRATION

Each Tech Prep student is given a "Request for Early Admission" form and instructed to secure the appropriate signatures. These signatures include the technical teacher, school principal, and parent. The student then reports to the Registrar's office on or before open registration day.

Tech Prep students attend their appropriate Delaware Technical Community College classes during their normal vocational-technical day. Each student is awarded a scholarship by Delaware Technical Community College and Tech Prep furnishes their books and tuition costs.

Near the end of the third week of the Delaware Technical Community College class, a conference is held to determine if the student should continue. This conference is held between, but not limited to, the student, the Delaware Technical Community College instructor and the vocational-technical instructor.

The student continues class using remedial services of Delaware Technical Community College if needed. When the student successfully completes the course, the vocational-technical instructor and counselor decide if the student is ready to go to the next level course.

MATRICULATION WITH ADVANCED STANDING

When the student approaches the end of his/her high school senior year he/she can, if they wish, request to become formally enrolled in a degree program.

Students participating will have their advanced credits registered and tracked on the statewide/DPI-ECS computer system. Data is accessible to administrators, counselors, and instructors from vocational-technical centers and Delaware Technical Community College, but can only be adjusted by authorized personnel in the Tech Prep Office. There are appropriate access codes to reserve confidentiality.

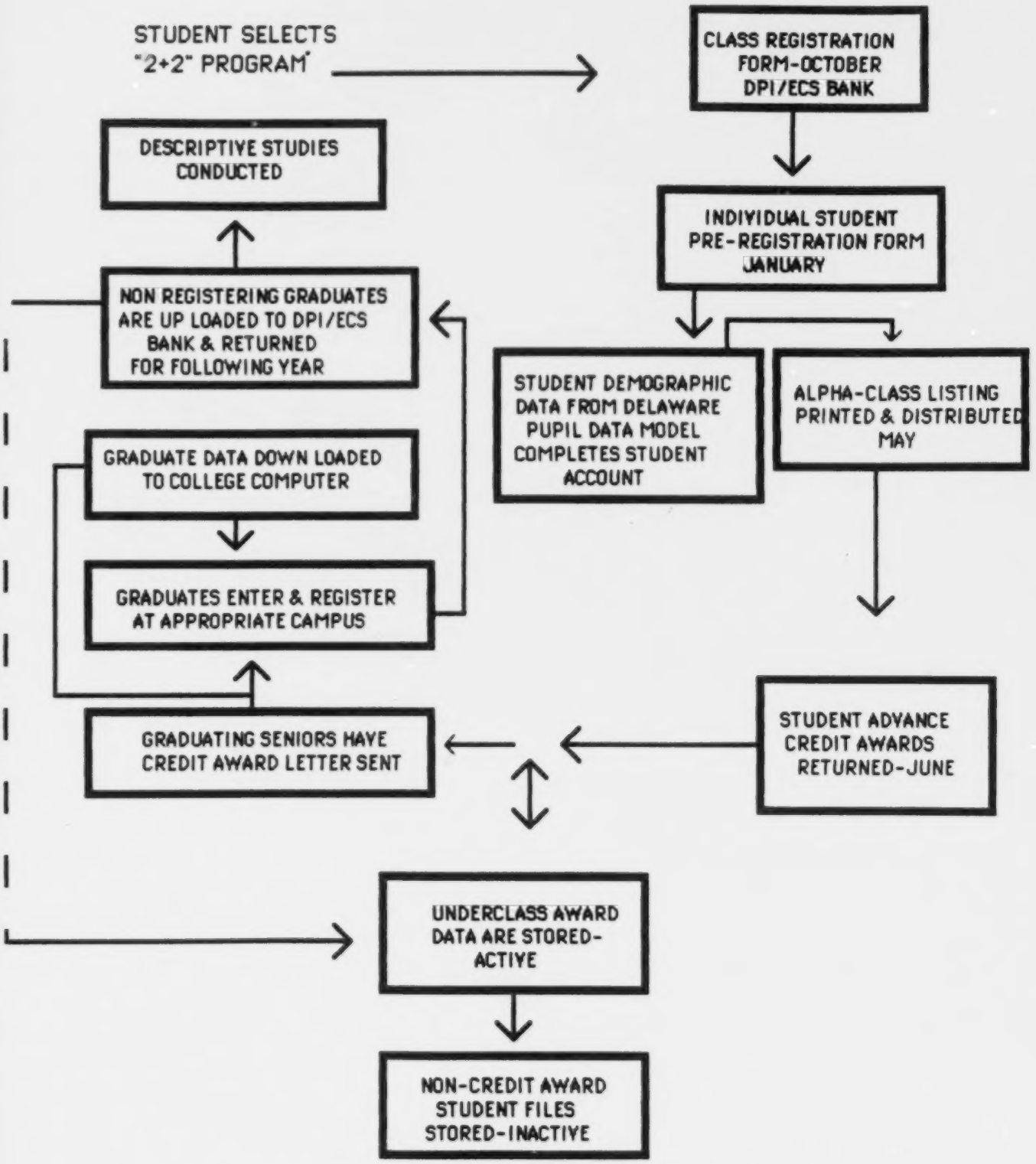
HIGHER EDUCATION

Students may apply their degree from Delaware Technical Community College to higher education institutions, i.e. Wilmington College and Delaware State College.

*The Computerized Student Data File maintains demographic data on each Tech Prep student as well as a history of all advance college credits, grades, etc. These data are cross referenced to three other file systems maintained by the Delaware Department of Public Instruction: (a) Graduate Follow-up Study; (b) State Dropout Analysis; (c) Achievement testing using the Stanford Achievement Test. These cross-referenced data banks offer valuable information about the progress of the Tech Prep students and are used to improve the course offerings.

DATA COLLECTION & EVALUATION

TECH PREP DATA COLLECTION & EVALUATION MODEL


STUDENT SELECTS "2+2" PROGRAM
CLASS REGISTRATION FORM-OCTOBER DPI/ECS BANK
INDIVIDUAL STUDENT PRE-REGISTRATION FORM JANUARY
STUDENT DEMOGRAPHIC DATA FROM DELAWARE PUPIL DATA MODEL COMPLETES STUDENT ACCOUNT
ALPHA-CLASS LISTING PRINTED & DISTRIBUTED MAY
STUDENT ADVANCE CREDIT AWARDS RETURNED-JUNE
GRADUATING SENIORS HAVE CREDIT AWARD LETTER SENT
GRADUATES ENTER & REGISTER AT APPROPRIATE CAMPUS
GRADUATE DATA DOWN LOADED TO COLLEGE COMPUTER
NON REGISTERING GRADUATES ARE UP LOADED TO DPI/ECS BANK & RETURNED FOR FOLLOWING YEAR
DESCRIPTIVE STUDIES CONDUCTED
UNDERCLASS AWARD DATA ARE STORED-ACTIVE
NON-CREDIT AWARD STUDENT FILES STORED-INACTIVE

TECH PREP DATA COLLECTION AND EVALUATION MODEL

SECTION I - INTRODUCTION

The Tech Prep Data Collection and Reporting Procedures were agreed upon by the Evaluation Committee composed of various technicians and administrators from Delaware's public secondary and postsecondary education sector.

The procedures were established with three priorities in mind:

1. Transition of academic and demographic data from the secondary file to the postsecondary file.

2. A permanent record of these data would be maintained in order to report the base line data and perform correlations to ascertain program effectiveness.

3. Simplify the process so that our classroom teachers were not burdened with unnecessary paper work.

SECTION II - TEACHER PROCEDURE

We believe the following procedures will help accomplish these priorities.

1. In late September or early October, after a short publicity and information campaign is conducted in each Tech Prep school, the classroom teachers will ask students if they wish to pursue the Tech Prep advance credit phase of the course.

2. The teacher enters the number on a class registration list and this list is returned to Tech Prep. The list originates at Tech Prep and is generated by the articulation contract. The list specifies all generic information before it arrives on the teacher's desk.

3. From the Class Registration List, Tech Prep responds by mailing the appropriate number of brochures, student handbooks, decals, bumper stickers, and Student Pre-registration Forms to each teacher. Students take the promotional materials home to discuss with parents. They fill out the pre-registration form

that is distributed by the teacher and return the form to the teacher to be mailed back to Tech Prep in a self addressed envelope. The student only provides four distinct pieces of information on the pre-registration form: name, date of birth, year of graduation, and social security number.

4. The information from the pre-registration list generates two actions. Once the Tech Prep data are entered on the Department of Public Instruction/ECS system, this will activate a request from the Delaware Pupil Data Model to provide the remaining discrete demographic information for each pre-registered student and a class alphabetical Tech Prep roster is printed. On an individual basis, students may be added or dropped from the system using a drop/add form.

5. The alphabetical class list is mailed to teachers in late May leaving ample time for individual adjustments and time for teachers to evaluate the advance credit standing for each student.

6. At this point, to award credit, the teacher simply circles the credit award winners with a red marker and returns the form to Tech Prep.

THE TOTAL TEACHER OBLIGATION IS 10 MINUTES PER YEAR

A. Writes a number on the form and mails it in a self addressed envelope/state mail.

B. Distributes, checks, and returns pre-registration forms via state mail in self addressed envelope.

C. Circles names of credit winners and returns list to Tech Prep via state mail in self addressed envelope.

SECTION III - DPI/ECS PROCEDURE

After Step 6, on the preceding page, the remaining work centers on the transfer and retention of various data between secondary/postsecondary institutions.

1. When the pre-registration forms arrive, the data are entered on the DPI/ECS computer and if the student is new, a file is originated.

   If the student is already active, the new data is added to the existing file.

2. From the Delaware Pupil Data Model all other required demographic data are extracted and added to the existing file.

   These data will included sex, race, educational or physical handicap, address, and available educational data already in ECS files. Eventually these data will be used to generate evaluation and assessment reports.

3. The pre-registrations will then be used to generate an alphabetical Tech Prep Credit Award Class List for each teacher/classroom pursuing an articulation program.

SECTION IV - POSTSECONDARY PROCEDURE

After the teachers return the credit award class list, these data are entered into the student file. The following steps then take place:

1. The files are split into two divisions, non-credit award winners and credit award students. The non-credit group is retained but not expunged. These data may prove to be valuable in the future.

   The credit award group is split into two divisions: underclassmen and graduating seniors.

2. Graduating seniors are sent letters of "Advance Credit Award" with instructions as to proper college registration procedures. The instructions also provide the name and phone number of the college campus contact counselor.

3. The letter contains a complete record of advance credits awarded.

4. The student contacts the campus counselor and presents his/her letter.

5. Meanwhile, the graduating senior data have been downloaded from the Department of Public Instruction to the college computers and the campus counselor can access that student file from a special Tech Prep field via the social security number. The display on the counselor's personal computer should be identical to the "Advance Credit Award" letter since the letter was generated from the computer data.

6. The files of graduating seniors not enrolled in the college after one quarter are then loaded back into the DPI/ECS files since the advance credit award eligibility is intact for a full year after graduation (actually 15 months to the ensuing September).

   These data are then treated as underclass data and are merged with the underclass files. They will be activated in one year as a graduating senior and then expunged if not utilized the following September.

7. After the prospective student meets the campus counselor, the counselor follows the standard college admission procedures and sets a course schedule for the student.

8. As a safeguard, Delaware Technical Community College requires the student to complete a quarter of successful experience at which time the credits are entered on the official transcript.

9. For a view of the program data time table, see the flow chart on page 39 ..

SECTION V - EVALUATION/ASSESSMENT

There are numerous valuable data contained in the DPI/ECS data bank. The committee examined the possibilities and has designed strategies that will utilize the data to provide clear assessments of the program progress. See the section on Descriptive Studies that follow.

SECTION VI - DESCRIPTIVE STUDIES

A descriptive file will be generated for each pre-registered student.

Each descriptive file will be divided into two categories:

(a) Earned Advance Credit;
(b) Did Not Earn Advanced Credit

Descriptors include demographics (race, sex, handicapped, etc.) advance credits earned, grade point average (secondary and postsecondary), major program (secondary and postsecondary), standardized scores (secondary and postsecondary), earned an Associate Degree or entered a Bachelor's Degree program.

A third group will be identified as Non-Tech Prep which will be randomly selected for future comparative studies.

A. Measure Effects On Recruitment

To ascertain whether Tech Prep students are entering post secondary programs, when they enter, and compared to a random sample of Non-Tech Prep students, the following data and comparisons will be gathered and conducted:

	Direct Entry From High School	Transfer From Other Postsecondary	Left And Reentered	Did Not Enter	%
Tech Prep N=					
Non Tech Prep N=					
Totals ( )					

Study #1

B. Success of Feeder Schools

Within our state, there are participating schools and non-participating schools. In an effort to determine both the quality and effect of our basic skills/integrated academic-technical curricula, the following data and comparisons will be gathered and conducted.

PROGRAM SUCCESS
TECH PREP STUDENTS
PRE-REGISTRATION GRADUATES
(SAMPLE)

PROGRAM

SCHOOL	CRIMINAL JUSTICE		ELECTRONICS		DATA PROCESSING	
	CR	NCR	CR	NCR	CR	NCR
A						
B						
C						

CR= Advance Credit Earned
NCR= No Advance Credit Earned

Study #2

POSTSECONDARY ENTRANCE
TECH PREP STUDENTS
PRE-REGISTRATION GRADUATES
(SAMPLE)

PROGRAM

SCHOOL	CRIMINAL JUSTICE		ELECTRONICS		DATA PROCESSING	
	EN	DNE	EN	DNE	EN	DNE
A						
B						
C						

EN = Entered Postsecondary Program
DNE= Did Not Enter Postsecondary Program

Study #3

ADMISSION CRITERIA
TECH PREP STUDENTS
PRE-REGISTRATION GRADUATES
(SAMPLE)

PROGRAM

SCHOOL	CRIMINAL JUSTICE		ELECTRONICS		DATA PROCESSING	
	ACGP	BCGP	ACGP	BCGP	ACGP	BCGP
A						
B						
C						

ACGP=Above Delaware Technical Community College CGP Admission Score
ABGP=Below Delaware Technical Community College CGP Admission Score

Study #4

C. Specific Evaluation Studies

Various studies and comparisons will be conducted during the five year period utilizing the base line longitudinal data described in section (d). Since the goal of the program is to impact (reduce) the general track population in comprehensive schools, improve technical preparation through integrated academic-vocational curricula in our vocational technical centers and increase the motivation in both groups to enter postsecondary education in technical areas, the following data and comparisons will be gathered and conducted.

DROP OUT COMPARISON
TECH PREP VS. NON TECH PREP
(GRADES 9-12)

	Number of Drop Outs	Number of No Drop Outs	%
Tech Prep Students (Random Sample) N=			
Non Tech Prep Students (Random Sample) N=			
Total State (SEC Population) N=			

Study #5

ACHIEVEMENT SCORE COMPARISON
TECH PREP VS. NON TECH PREP
GRADES (9-11)

	Average ACH Score	Significant Differences
Tech Prep Students (Random Sample) N=		
Non Tech Prep Students (Random Sample) N=		
State Average		

T= Test Used
Achievement Battery: Stanford, 8th Edition

Study #6

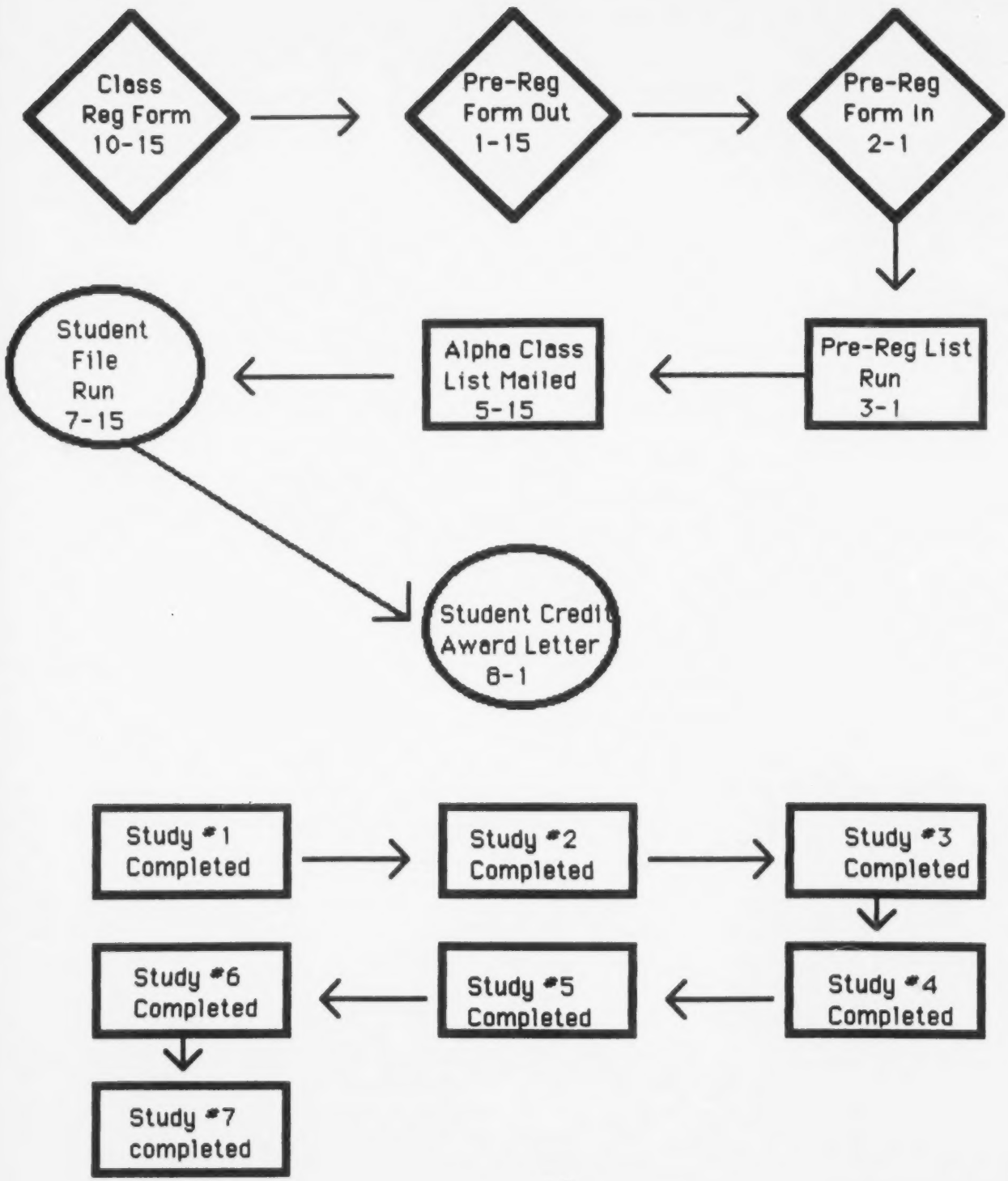
DELAWARE TECHNICAL COMMUNITY COLLEGE
TECH PREP VS. NON TECH PREP
GRADE POINT AVERAGE

	NUMBER OF CREDITS	AVERAGE GRADE POINT AVERAGE
Tech Prep Students (Random Sample) N=		
Non Tech Prep Students (Random Sample) N=		

Study #7

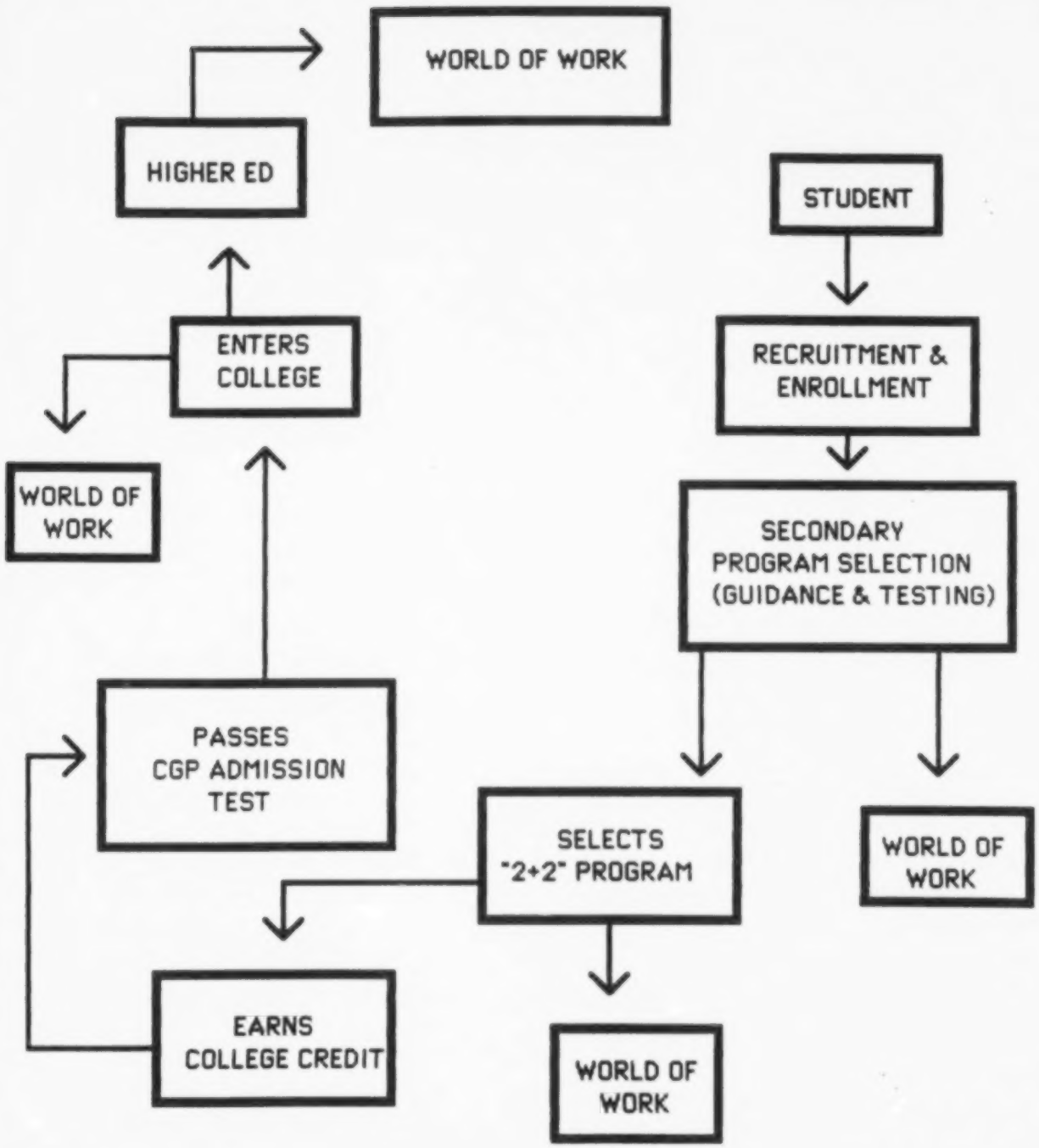
FLOW CHART

ATTACHMENT D.



SCHOOL AND COMMUNITY

SCHOOL/COMMUNITY MODEL



SCHOOL/COMMUNITY MODEL

Tech Prep is designed to offer students an opportunity to appreciate the benefits of a college education. Many students in our target group traditionally would not consider college as a viable option. In educational terminology, we refer to them as the "General Track," America's educational wasteland.

This group of youngsters has six specific educational needs that must be provided. They are:

SECTION I - PROGRAM ENTRY

1. A demanding core school program built on sound basics and technical preparation. This approach serves as the confidence builder often lacking in students who believe they cannot achieve.

2. Intelligent counseling, in concert with parents, can aid in directing students toward vocational-technical clusters in which they have both an interest and aptitude.

3. Related academic-vocational/technical school activities that will bring the relationships of the world of work to the classroom so students can readily see the need for their school work.

4. Career guidance and placement services that help youngsters locate and pursue a meaningful career after high school or establish the need for higher educational experience and lead them to the proper institution.

SECTION II - ADMISSION TO HIGHER EDUCATION

5. Articulation agreements between secondary and postsecondary partner institutions that promote college participation as a viable option to workplace entry and permit high school students to earn advance college credits establishing self confidence while easing the transition to postsecondary success.

6. The postsecondary experience also must lead to technical preparation for ultimate workplace entry having provided the student with the highest level of technical competence. This competence will be necessary if our young people are going to be successful and if America is to compete in the modern global economy.